In the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

17. (Currently amended) A method of installing a sensor in a well, comprising the steps of:

- positioning a casing having a sensor located in a carrier on the outside of a casing,

- cementing the casing in position,

- positioning a drilling tool inside the casing adjacent to the carrier,

- drilling through the casing, carrier and cement into the formation surrounding the well so as to create a fluid communication path and a drawdown across the drilled hole to produce[ing] reservoir fluid through the hole for cleaning the hole of debris,

- sealing the hole drilled in the casing with said tool, and

- removing said tool from the well.

18. (Previously presented) The method as claimed in claim 17, further comprising making a direct measurement of formation pressure prior to sealing the hole.

19. (Previously presented) The method as claimed in claim 17, wherein the drilling and sealing operations are repeated at intervals throughout the life of the well.

20. (Previously presented) The method as claimed in claim 17, wherein the sensor is mounted in a chamber in the carrier.

21. (Previously presented) The method as claimed in claim 20, wherein the sensor is mounted at one end of an elongate chamber, the hole being drilled through the chamber at a point remote from the location of the sensor.

22. (Previously presented) The method as claimed in claim 20, wherein a buffer tube is installed in the chamber which extends to the sensor, the hole being drilled through the buffer tube as well as the chamber.

23. (Previously presented) The method as claimed in claim 20 wherein the chamber is be filled with a permeable material, the hole being drilled through the permeable material.

24. (Previously presented) The method as claimed in claim 23 wherein the permeable material is selected from the list consisting of permeable cement and sintered metal.

25. (Previously presented) The method as claimed in claim 17, wherein the carrier comprises a permeable material encapsulating the sensor.

26. (Previously presented) The method as claimed in claim 17, comprising positioning the drilling and plugging tool inside the casing relative to the chamber through which it is to drill using an indexing system located inside the casing.

27. (Previously presented) The method as claimed in claim 26, further comprising using a measurement of formation properties to indicate the depth of the tool in the well.

28. (Previously presented) The method as claimed in claim 17, wherein a series of sensors are installed, each in a separate chamber on the outside of a respective casing.

29. (Previously presented) The method as claimed in claim 17, further comprising running a cable along the outside of the casing in the well from the or each sensor to the surface.

30. (Previously presented) The method as claimed in claim 29, wherein when installing the casing carrying sensors into the well, the casing can be rotated as it is inserted into the well such that the cable is wound in a spiral manner around the casing.

31. (Previously presented) The method as claimed in claim 29, comprising providing regularly spaced spacers on the cable which allow a space to be maintained between the cable and the outside of the casing.

32. (New) A method of installing a sensor in a well, comprising the steps of:

positioning a casing having a sensor located in a carrier on the outside of a casing,

cementing the casing in position,

positioning a drilling tool inside the casing adjacent to the carrier,

drilling through the casing, carrier and cement into the formation surrounding the well so as to create a fluid communication path and a drawdown across the drilled hole to producing reservoir fluid through the hole,

sealing the hole drilled in the casing with said tool,

removing said tool from the well, and

wherein a series of sensors are installed, each in a separate chamber on the outside of a respective casing.

33. (New) A method of installing a sensor in a well, comprising the steps of:

positioning a casing having a sensor located in a carrier on the outside of a casing,

cementing the casing in position,

positioning a drilling tool inside the casing adjacent to the carrier,

running a cable along the outside of the casing in the well from the sensor to the surface,

drilling through the casing, carrier and cement into the formation surrounding the well so as to create a fluid communication path and a drawdown across the drilled hole to producing reservoir fluid through the hole,

sealing the hole drilled in the casing with said tool, and

removing said tool from the well.

34. A method of installing a sensor in a well, comprising the steps of:

positioning a casing having a sensor located in a carrier on the outside of a casing, wherein the sensor is mounted in a chamber in the carrier and a buffer tube is installed in the chamber which extends to the sensor,

cementing the casing in position,

positioning a drilling tool inside the casing adjacent to the carrier,

drilling through the drilling tube, chamber, casing, carrier and cement into the formation surrounding the well so as to create a fluid communication path and a drawdown across the drilled hole to producing reservoir fluid through the hole, and

sealing the hole drilled in the casing with said tool.